

The Economics of Remedies

Edited by Ariel Porat

The Economics of Remedies

Edited by

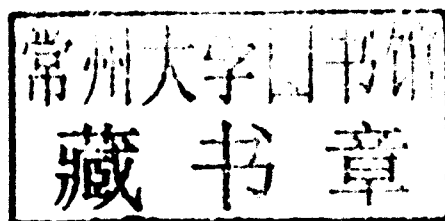
Ariel Porat

Alain Poher Professor of Law

Tel Aviv University, Israel and

Fischel-Neil Distinguished Visiting Professor of Law

University of Chicago, USA



ECONOMIC APPROACHES TO LAW

An Elgar Research Collection

Cheltenham, UK • Northampton, MA, USA

© Ariel Porat 2012. For copyright of individual articles, please refer to the Acknowledgements.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior permission of the publisher.

Published by
Edward Elgar Publishing Limited
The Lypiatts
15 Lansdown Road
Cheltenham
Glos GL50 2JA
UK

Edward Elgar Publishing, Inc.
William Pratt House
9 Dewey Court
Northampton
Massachusetts 01060
USA

A catalogue record for this book is available from the British Library

Library of Congress Control Number: 2012930588



ISBN 978 0 85793 448 2

Printed and bound by MPG Books Group, UK

Economic Approaches to Law

Series Editors: Richard A. Posner

*Judge, United States Court of Appeals for the Seventh Circuit
and Senior Lecturer, University of Chicago Law School, USA*

Francesco Parisi

*Oppenheimer Wolff and Donnelly Professor of Law, University of
Minnesota Law School, USA*

and Professor of Economics, University of Bologna, Italy

Wherever possible, the articles in these volumes have been reproduced as originally published using facsimile reproduction, inclusive of footnotes and pagination to facilitate ease of reference.

For a full list of published and future titles in this series
and a list of all Edward Elgar published titles visit our website at
www.e-elgar.com

Acknowledgements

The editor and publishers wish to thank the authors and the following publishers who have kindly given permission for the use of copyright material.

Ariel Porat for his own article: (2007), 'Offsetting Risks', *Michigan Law Review*, **106**, November, 243–76.

California Law Review, Inc. for article: Robert Cooter and Melvin Aron Eisenberg (1985), 'Damages For Breach of Contract', *California Law Review*, **73** (5), October, 1432–81.

Columbia Law Review Association, Inc. via the Copyright Clearance Center for article: Charles J. Goetz and Robert E. Scott (1977), 'Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach', *Columbia Law Review*, **LXXVII**, 554–94.

Elsevier Ltd for articles: David Friedman (1982), 'What is "Fair Compensation" for Death or Injury?', *International Review of Law and Economics*, **2** (1), June, 81–93; Ronen Avraham (2004), 'Modular Liability Rules', *International Review of Law and Economics*, **24**, 269–97.

Harvard Law Review Association via the Copyright Clearance Center for articles: Guido Calabresi and A. Douglas Melamed (1972), 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral', *Harvard Law Review*, **85** (6), April, 1089–128; A. Mitchell Polinsky and Steven Shavell (1998), 'Punitive Damages: An Economic Analysis', *Harvard Law Review*, **111** (4), February, 870–962.

Lucian Arye Bebchuk for his own article: (2001), 'Property Rights and Liability Rules: The Ex Ante View of the Cathedral', *Michigan Law Review*, **100**, December, 601–39.

Oxford University Press for article: W. Bishop (1982), 'Economic Loss in Tort', *Oxford Journal of Legal Studies*, **2** (1), 1–29.

Thomas S. Ulen for his own article: (1984–1985), 'The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies', *Michigan Law Review*, **83**, November, 341–403.

University of Chicago Law Review via the Copyright Clearance Center for article: Anthony T. Kronman (1977–1978), 'Specific Performance', *University of Chicago Law Review*, **45**, 351–82.

University of Chicago Press for articles: Samuel A. Rea, Jr. (1982), 'Nonpecuniary Loss and Breach of Contract', *Journal of Legal Studies*, **XI** (1), January, 35–53; Richard A. Epstein (1989), 'Beyond Foreseeability: Consequential Damages in the Law of Contract', *Journal of Legal Studies*, **XVIII** (1), January, 105–38; Louis Kaplow and Steven Shavell (1996), 'Accuracy in the Assessment of Damages', *Journal of Law and Economics*, **XXXIX** (1), April, 191–210; Saul Levmore (1990), 'Probabilistic Recoveries, Restitution, and Recurring Wrongs', *Journal of Legal Studies*, **XIX** (2), June, 691–726.

Southern California Law Review for article: Richard Craswell (1988), 'Contract Remedies, Renegotiation, and the Theory of Efficient Breach', *Southern California Law Review*, **61**, 629–70.

Springer Science and Business Media for article: Barbara Luppi and Francesco Parisi (2011), 'Toward an Asymmetric Coase Theorem', *European Journal of Law and Economics*, **31**, 111–22.

Yale Law Journal Company, Inc. via the Copyright Clearance Center for article: Alan Schwartz (1979), 'The Case For Specific Performance', *Yale Law Journal*, **89** (1), November, 271–306.

Every effort has been made to trace all the copyright holders but if any have been inadvertently overlooked the publishers will be pleased to make the necessary arrangement at the first opportunity.

In addition the publishers wish to thank the Library of Warwick, UK for their assistance in obtaining these articles.

Introduction

*Ariel Porat**

It is by no means self-evident that the law of remedies is an independent field, distinguishable from the substantive bodies of the law that it serves. In both contract and tort courses, a substantial part of the time is devoted to remedies, while remedies are an integral part of most codes that regulate contracts and torts. Yet most law school curricula do not include a remedies course, and I know of no code dedicated to remedies for both contracts and torts. This should come as no surprise. After all, remedies are closely interrelated with the specific substantive fields they are attached to, since they are supposed to promote the goals underlying those fields. For example, while protecting the parties' expectation interests is a goal of contract law, it is of almost no relevance to tort law. Speaking of expectation damages would therefore be meaningless without a strong link to the rationales of contract law. Similarly, punitive damages are almost exclusively a tort remedy, with any application of this remedy closely tied to tort law objectives.

There are, however, many remedies issues that are common to both contracts and torts, and examining those issues as a separate topic of analysis in itself could be beneficial. Such an analysis would enable the sharing of knowledge and experience acquired regarding a specific remedy between the fields. It also would single out the common characteristics, perhaps even the common theoretical ground, of contracts and torts.¹ At the same time, this analysis of remedies would also have to be quite sensitive to the divergences between the rationales of contracts and torts and exercise caution in analogizing between the two fields. The comparative fault defense is illustrative of this. Very common in torts, this defense is also available to a contract breaker, under certain conditions, in many jurisdictions, mostly outside the United States.² It would be a mistake, however, to import the tort comparative fault defense into contract law as is, since the differences between the two fields seem to mandate a much narrower defense in contracts. Indeed, it is not by coincidence that the comparative fault defense originated in torts, rather than contracts, and that, in many jurisdictions, it is not applied in the latter at all. This is not to say, however, that the experience acquired regarding the defense in torts is not relevant to contracts.

Injunctive reliefs are another example: In contract disputes, courts are authorized to issue orders of specific performance against the breaching party, while in tort cases, they issue injunctions against the wrongdoer. Yet although the general economic rationales could be similar for the two remedies (for example, both remedies could be justified by low transaction costs), they have completely different applications, suited to the intricacies of their respective fields. In contrast, the mitigation of damages defense is common in both contracts and torts. In this context, the similarities seem to outweigh the differences. So although different factual settings give rise to the defense in the two fields, its application in one field can be informative for its application in the other.

Before proceeding to the presentation of the five parts of this volume, some of the criteria used in selecting the articles chosen should be noted. Less formal articles were preferred over more formal ones, and articles that laid out the foundations of remedies were chosen over articles that delved into the details. I also sought a diversity of authors. Finally, all the articles discuss remedies exclusively in the fields of contracts and/or torts, and not in other fields such as constitutional or administrative law.

Part I: Property Rules and Liability Rules

The starting point of any economic analysis of remedies must undoubtedly be Guido Calabresi and Douglas Melamed's (Ch. 1) seminal *Property Rules, Liability Rules and Inalienability Rules: One View of the Cathedral*. This volume is no exception, with their article opening the collection. Calabresi and Melamed distinguished between the allocation of entitlements and the remedies for protecting them, as two distinct stages in the promotion of efficiency. In particular, they argued that once entitlements have been allocated, they can be protected by either property or liability rules. Under a property rule, no one is allowed to deprive the owner of his entitlement without his consent; under a liability rule, others are allowed to deprive the owner of his entitlement, but must compensate him for his resulting losses. For example, suppose Polluter inflicts harm on Resident. The law should allocate an entitlement either to Resident to live without the pollution or else to Polluter to pollute without interference. If we assume that the entitlement was allocated to Resident, a second decision must be made: whether to protect the entitlement with a property rule or with a liability rule. Under the former type of rule, Resident could sue Polluter in court and get an injunction prohibiting further pollution. Under a liability rule, in contrast, Resident would be entitled only to compensation, so that the choice would be Polluter's as to whether to stop polluting or to instead continue to pollute but compensate Resident for his harms. Calabresi and Melamed analyzed the efficiency considerations in these decisions, showing in particular that when transaction costs are low, property rules should be preferred to liability rules, and vice versa with high transaction costs. Simply put, when transaction costs are high and the initial allocation of entitlements is not necessarily efficient (for example, Resident is entitled to live without pollution, but the costs of stopping the pollution could be higher than his relocation costs), a liability rule would better promote efficiency. Thus, Polluter would decide between polluting and paying damages for the resulting harm and ceasing to pollute and bearing no liability. Since Polluter internalizes both the social costs and benefits of her decision, she would take the efficient course of action.³

The second article (Ch. 2), Lucian Bebchuk's, *Property Rights and Liability Rules: The Ex-Ante View of the Cathedral*, points out that Calabresi and Melamed offer an 'ex-post analysis'; namely, an analysis that takes as a given the costs and benefits that would be generated for the parties with and without externality-producing actions. This analysis, claims Bebchuk, does not fully capture the entire picture. The allocation of entitlements and the way in which they are protected divide values between the parties differently, and this ex-post division has a considerable impact on the parties' ex-ante decisions. Ex-ante decisions (1) take place before the making of decisions about whether to undertake externality-producing actions and (2) influence the parties' potential payoffs with or without these externality-producing

actions. A full account of the efficiency of any given allocation of entitlements and how they are protected must consider not only the ex-post analysis but also the ex-ante analysis proposed by Bebchuk.

The third article (Ch. 3), by Ronen Avraham, is *Modular Liability Rules*. It deals with the very common situation in which the court applying liability rules lacks information about the values the parties ascribe to their entitlements. Avraham suggests a set of rules, constructed on a combination of Calabresi and Melamed's rules and some additional rules proposed by subsequent writers, that can potentially encourage parties to reveal their true valuations of their entitlements, thereby facilitating a more efficient allocation of entitlements.

Part I concludes in Chapter 4 with Barbara Luppi and Francesco Parisi's article *Toward an Asymmetric Coase Theorem*. The authors address the problematics of the optimal choice of remedies when there are asymmetric transaction costs. Luppi and Parisi define asymmetric transaction costs as situations in which different alternatives for reallocating resources entail different costs, such as when it is less costly to transfer an entitlement from one use to another than in the reverse direction. Luppi and Parisi consider the possibility of using mixed remedies in such cases; for example, applying a property rule when A is the owner of the entitlement and B is the potential infringer and a liability rule if the positions of A and B are reversed.

Part II: Efficient Breach: Damages versus Specific Performance

The distinction between property rules and liability rules applies to contract law: specific performance is a property rule, while the remedy of damages is a liability rule. It is often noted that Anglo-American law prefers damages to specific performance, whereas continental legal systems take the opposite approach. When it comes to how the courts handle real-life cases, however, there seems to be no substantial difference among jurisdictions. Part II of the volume looks at the choice between damages and specific performance and the idea of efficient breach.

There has been extensive debate in the legal literature regarding specific performance and damages, over which should be the primary remedy and which the exception. For many, this debate represents a much broader dispute between law and economics and deontological scholars over the nature and goals of the law.⁴ Richard Posner was the first to develop the theory of efficient breach, arguing that expectation damages, not specific performance, should be the primary remedy, since it encourages efficient breach and performance. Thus, under a damages rule, a seller who undertakes to sell a widget to Buyer A and is offered by Buyer B more than what is needed to fully compensate Buyer A would breach the contract and gain the difference between the payment he receives from Buyer B and the damages he pays to Buyer A. This would be an efficient breach: The value Buyer B attaches to the widget is higher than the value Buyer A attaches to it; therefore, applying the remedy of expectation damages would lead to an efficient allocation of resources, in that the person who places greater value on the widget eventually gets it. Specific performance – so the efficient breach theory holds – could prevent efficient breaches: As with any property rule, under this remedy, the seller in our example would need a release from Buyer A before selling the widget to Buyer B. If renegotiation costs are high, he may fail to secure that release. In contrast, a damages remedy entails no such release: as with any liability rule, the seller would be allowed to act unilaterally – to breach the contract and pay damages.

Part II begins with Anthony Kronman's *Specific Performance* (Ch. 5). In this article, Kronman proposes a rationale for the willingness of courts to allow specific performance when the contract subject matter is a unique, rather than fungible, good. He suggests that with unique goods, far more so than with fungible goods, there is a substantial risk of under-compensation of buyers for two reasons: First, buyers often attach a subjective value to the unique good, and that value is not compensated for in the event of breach. Second, subsequent to breach of unique good contracts by sellers, buyers incur search costs in finding a substitute good, on top of the search costs they incurred when finding the original good, and those additional search costs are also not compensated for. Since according to Kronman the parties would prefer specific performance over damages if the benefit to the seller from having the option to breach and pay damages is less than the costs of the breach to the buyer; and since the costs of the breach to the buyer with unique goods are typically higher than with fungible goods, Kronman concludes that specific performance would more often be preferred by the parties with unique goods than with fungible goods.

The second article in Part II (Ch. 6) is *The Case for Specific Performance* by Alan Schwartz, which argues for a much broader application for specific performance than suggested by Kronman. Schwartz asserts, among other things, that the risk of under-compensation is substantial not only with unique goods, as Kronman suggests, but also with many fungible goods. Furthermore, in contrast to Kronman, Schwartz claims that the benefit to the seller of having the option to breach and pay damages is often lesser with fungible goods than with unique goods. Therefore, contrary to the Kronman's conclusion, in the context of fungible goods, the parties' ex-ante preferences would not necessarily warrant damages, rather than specific performance, as the preferred remedy. For Schwartz, the central consideration in the choice between damages and specific performance as a remedy is which one yields lower post-breach negotiation costs. This depends, according to Schwartz, mostly on whether it is easier for the seller or for the first buyer to find the second buyer who values the good more than the first buyer: only if it is the seller could damages be preferable to specific performance.

In his article (Ch. 7) *The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies*, Thomas Ulen takes the argument for specific performance one step further, suggesting that specific performance should be the routine remedy for breach. Ulen, like Schwartz, regards the post-breach negotiation costs as a central factor in the efficiency of specific performance. However, he introduces an additional consideration, not discussed by Schwartz, namely; the effect of the remedy on the efficiency of the exchange of reciprocal promises. According to Ulen, if specific performance were to be the routine remedy, there are strong reasons to believe that more mutually beneficial exchanges of promises would be concluded in the future and at a lower cost than under any other contract remedy.

The last article in Part II (Ch. 8) is Richard Craswell's *Contract Remedies, Renegotiation, and the Theory of Efficient Breach*. This article systematically analyzes the effects of the contractual remedies on various decisions made by the promisor and promisee. Whereas most of the preceding writers focus on the promisor's decision to perform or breach, Craswell, like Ulen, considers the effect of the remedies on the decision as to whether to enter into the contract in the first place; unlike Ulen, however, he also looks at the decision to take precautions to reduce the probability of breach. Craswell explains that even if post-breach negotiation costs are zero, the prevailing remedy will still affect the parties' decisions made before the promisor's decision whether to perform or breach. In this regard, Craswell's and Bebchuk's articles share

a common thread: both underscore the ex-ante view of the cathedral – Craswell in the context of contracts and Bebbchuk in torts.⁵

Part III: The Measure of Recovery

In both contracts and torts, a recurring question is for what precisely should compensation be granted? Answering this question is not a merely technical matter, but, rather, entails a deep understanding of the goals of the two legal fields. In contracts, Fuller and Perdue's *The Reliance Interest in Contract Damages*, published almost 80 years ago,⁶ remains the seminal work and is still relevant and influential. The authors mapped out the three interests protected by contract law – expectation, reliance, and restitution – emphasizing the centrality and importance of the reliance interest and suggesting that expectation damages are aimed mainly at protecting that interest. The first article of Part III (Ch. 9), *Damages for Breach of Contract*, by Robert Cooter and Melvin Eisenberg, analyzes these three interests, in the contexts of both perfectly and imperfectly competitive markets. The article develops formulas for computing damages in contracts in various circumstances and demonstrates how the amount of damages awarded affects parties' incentives to perform, to take precautions against breach, and to rely on contracts.⁷

The second article in Part III (Ch. 10), Louis Kaplow and Steven Shavell's *Accuracy in the Assessment of Damages*, turns to torts and asks whether efficiency requires an accurate measurement of harms. The authors show that while litigants reap private benefits from gathering information about the harm done, these benefits do not necessarily correlate with the social good. Non-correlation will arise in cases in which the injurer cannot know in advance the identity of his potential victim.

Similarly to the Kaplow and Shavell article, the third and fourth articles of Part III deal with the lack of overlap between damages and harms in two legal doctrines, the one in contracts and the other in torts. In *Punitive Damages: An Economic Analysis*, Mitchell Polinsky and Steven Shavell (Ch. 11) present a comprehensive analysis of punitive damages. The authors argue that punitive damages ordinarily should be awarded if, and only if, an injurer has a significant chance of escaping liability for the harm he caused. Under this condition, punitive damages are necessary to offset the deterrence-diluting effect of the possibility of escaping liability. Polinsky and Shavell also discuss the tension between the implications of the deterrence objective and prevailing punitive damages law, including the law's emphasis on the reprehensibility of a defendant's conduct and on a defendant's wealth.⁸

As with punitive damages in torts, with liquidated damages in contracts, an aggrieved party could receive damages in excess of his losses. However, in the case of liquidated damages, the reverse could also happen and damages be under-compensatory, for liquidated damages often serve as a ceiling and not just a floor. In Charles Goetz and Robert Scott's *Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach* (Ch. 12), the courts' practice of invalidating liquidated damages clauses for being penalties is challenged. The authors assert that this practice often triggers a costly reexamination of the initial allocation of risks and could also lead to the aggrieved party being denied either adequate compensation for the harm caused by the breach or the opportunity to insure optimally against such harm. The authors conclude that

efficiency would be enhanced by enforcing an agreed-upon allocation of risks embodied in a liquidated damage clause.⁹

Part IV: The Scope of Liability

Part IV of the volume considers certain types of harms that raise special concerns in both the law and economic theory. William Bishop (Ch. 13), in *Economic Loss in Tort*, delves into the puzzling question of why economic losses should be compensated, even though they are merely transfers of wealth from one person to another and, therefore, constitute a private, rather than a social, loss. Bishop discusses the circumstances in which involuntary transfers of wealth due to wrongdoing should not raise special concerns, as well as those circumstances in which such transfers are socially detrimental and should be addressed by the law.¹⁰

Samuel Rea's *Nonpecuniary Loss and Breach of Contract* (Ch. 14) exposes the conflict between the insurance and incentives objectives of contract law when liability for nonpecuniary losses is at stake. On the one hand, the insurance theory predicts that people will not insure against nonpecuniary losses; on the other hand, the promisor's incentives to perform or breach will be efficient if he is liable for all losses, including nonpecuniary ones. The author proposes a model for resolving this conflict, suggesting that, in certain cases, the 'against insurance' argument should prevail, while in other cases, the 'incentives arguments' should dominate the parties' interests.¹¹

In *What is 'Fair Compensation' for Death or Injury?*, David Friedman (Ch. 15) argues that the tort principle that the injurer must make the victim as well off as she would have been had the injury not occurred is simply not suited to cases of death or severe bodily injury. In such circumstances, the marginal utility of money to the victim is often reduced, with compensation meaningless in the case of death. Seeking a level of compensation that is both efficient and adequate, Friedman proposes to shift from the ex-post situation, in which the injury has already occurred, to the ex-ante situation, in which the potential victims are subject to some probability of injury or death, but the damage has not yet occurred. An estimate should then be made of the sum that would be sufficient for the average person to be willing to accept some small probability of death or severe bodily injury.¹²

Wrapping up Part IV is Richard Epstein's *Beyond Foreseeability: Consequential Damages in the Law of Contract* (Ch. 16), which considers the efficiency of liability – as well as no liability and limited liability – for consequential damages in contracts. Among other things, the author discusses the adverse selection problem that arises with non-capped consequential damages, the signaling effect of capping those damages, and various kinds of other incentive effects such damages have on both the promisor and promisee.¹³

Part V: Partial Compensation

The final part of the volume is composed of two articles, the first discussing probabilistic recoveries and the second 'offsetting risks'.

Under traditional law, liability is imposed only if the probability of causation is greater than 50 percent. Thus in areas where the probability of causation is typically lower than 50 percent,

underdeterrence could result: potential injurers will not take adequate precaution to avoid harm since they face an expected liability that is lower than the expected harm of their wrongful behavior. Saul Levmore, in *Probabilistic Recoveries, Restitution, and Recurring Wrongs* (Ch. 17), discusses such cases, analyzing existing solutions and offering new ones. Some of the prevailing solutions are camouflaged; Levmore speculates, for example, that sometimes courts manipulate legal doctrines to achieve the desired level of deterrence. But Levmore proposes two novel, direct solutions for overcoming the difficulties of proving causation: probabilistic recovery and restitution liability. He analyzes the pros and cons of both solutions and explains under what circumstances they would optimally be applied.¹⁴

The last article is Ariel Porat's *Offsetting Risks* (Ch. 18). Occasionally, injurers simultaneously increase and decrease risks. In considering whether to impose liability under a negligence rule, courts take into account both the risks increased and decreased and decide whether, given the costs of precautions, the injurer was negligent or not. If a court decides that the injurer was negligent, it will impose liability on him for the full harm caused to the victim and award damages accordingly. As explained in this article, the courts' disregard for the decreased risks, which the article calls 'offsetting risks', is unjustifiable from an efficiency perspective. Instead, liability should be reduced to reflect the risks that the negligent injurer decreased. The article applies this argument principally, but not exclusively, to medical malpractice cases, where doctors often simultaneously increase and decrease their patients' risks.

Conclusion: Law is not just about efficiency, and remedies are no exception. Corrective justice and distributive justice also have a role to play, alongside efficiency, in contracts and torts. But the study of the common law – with contracts and torts at its core – can hardly be complete without understanding its economics rationales, and it is impossible to grasp the economics of contracts and torts without considering the economics of remedies.

Notes

* I thank Omer Yehezkel for excellent research assistance.

1. Robert Cooter, *Unity in Tort, Contracts and Property: The Model of Precaution*, 73 CAL. L. REV. 1 (1985).
2. Ariel Porat, *A Comparative Fault Defense in Contract Law*, 107 MICH. L. REV. 1397 (2009).
3. Calabresi and Melamed's article has inspired an abundance of writings, a few of which are included in Part I of this volume. For some important articles, see, for example, Ian Ayres, *Legal Entitlements as Auctions: Property Rules, Liability Rules, and Beyond*, 106 YALE L. J. 703 (1996); Saul Levmore, *Unifying Remedies: Property Rules, Liability Rules, and Startling Rules*, 106 YALE L. J. 2149 (1997); Louis Kaplow and Steven Shavell, *Property Rules versus Liability Rules: An Economic Analysis*, 109 HARV. L. REV. 713 (1996); Avraham Bell and Gideon Parchomovsky, *Pliability Rules*, 101 MICH. L. REV. 1 (2002); Gideon Parchomovsky and Alex Stein, *Reconceptualizing Trespass*, 103 NW. U. L. REV. 1823 (2010).
4. See, for example, Seana Shiffrin, *Could Breach of Contract be Immoral?*, 107 MICH. L. REV. 1551 (2009); Steven Shavell, *Why Breach of Contract May Not Be Immoral Given the Incompleteness of Contracts*, 107 MICH. L. REV. 1569 (2009); Richard Posner, *Let Us Never Blame A Contract Breaker*, 107 MICH. L. REV. 1349 (2009).
5. See also Richard Brooks, *The Efficient Performance Hypothesis*, 116 YALE L. J. 568 (2006).
6. Lon L. Fuller and William R. Perdue, *The Reliance Interest in Contract Damages* (pt. 1), 46 YALE L. J. 52 (1936); Lon L. Fuller and William R. Perdue, *The Reliance Interest in Contract Damages* (pt. 2), 46 YALE L. J. 373 (1936). See also Richard Craswell, *Against Fuller and Perdue*, 67 U. CHI. L. REV. 99 (2000).

7. See also Robert L. Birmingham, *Breach of Contract, Damage Measures and Economic Efficiency*, 24 RUTGERS L. REV. 273 (1970); Steven Shavell, *Damages Measures for Breach of Contract*, 11 BELL J. ECON. 466 (1980); Steven Shavell, *The Design of Contracts and Remedies for Breach*, 99 Q. J. ECON. 121 (1984); Lucian Bebchuk and Steven Shavell, *Information and the Scope of Liability for Breach of Contract: The Rule of Hadley v. Baxendale*, 7 J. L. ECON. ORG. 284 (1991); Robert Cooter and Ariel Porat, *Anti Insurance*, 31 J. LEG. STUD. 203 (2002).
8. See also Catherine M. Sharkey, *Punitive Damages as Societal Damages*, 113 YALE L. J. 347 (2003); Richard Craswell, *Deterrence and Damages: The Multiplier Principle and Its Alternatives*, 97 MICH. L. REV. 2185 (1999); Oren Bar-Gill and Omri Ben-Shahar, *An Information Theory of efficient Breach*, 107 MICH. L. REV. 1479 (2009).
9. See also Alan Schwartz, *The Myth that Promisees Prefer Supercompensatory Remedies: An Analysis of Contracting for Damages Measures*, 100 YALE L. J. 369 (1990); Tai-Yeong Chung, *On the Social Optimality of Liquidated Damages Clauses: An Economic Analysis*, 8 J. L. ECON. ORG. 280 (1992); Robert Cooter, *Economic Analysis of Punitive Damages*, 56 S. CAL. L. REV. 79 (1982); Jonathan Karpoff and John Lott, *On the Determinants and Importance of Punitive Damages Awards*, 42 J. L. ECON. 527 (1999); Samuel Rea, *Efficiency Implications of Penalties and Liquidated Damages*, 13 J. LEG. STUD. 147 (1984); Kathryn Spier and Michael D. Whinston, *On the Efficiency of Privately Stipulated Damages for Breach of Contract: Entry Barriers, Reliance and Renegotiation*, 26 RAND J. ECON. 180 (1995).
10. See also Giuseppe Dari-Mattiacci and Hans Bernd Schaefer, *The Core of Pure Economic Loss*, 27 INTERNATIONAL REV. L. ECON. 8 (2007); Mario J. Rizzo, *A Theory of Economic Loss in the Law of Torts*, 11 J. LEG. STUD. 281 (1982).
11. See also John E. Calfee and Paul H. Rubin, *Some Implications of Damage Payments for Nonpecuniary Losses*, 21 J. LEG. STUD. 371 (1992); Steven P. Croley and Jon D. Hanson, *The Nonpecuniary Costs of Accidents: Pain-and-Suffering Damages in Tort Law*, 108 HARV. L. REV. 1785 (1995); Victor Goldberg, *Recovery for Economic Loss Following The Exxon Valdez Oil Split*, 23 J. LEG. STUD. 1 (1994).
12. See also Ariel Porat and Avraham Tabbach, *Willingness to Pay, Wealth, Death, and Damages*, 13 AM. L. ECON. REV. p.45 (2011).
13. On scope of liability in general, see Ariel Porat, *Misalignments in Tort Law*, 121 YALE L. J. p.82 (2011).
14. See also Joseph H. King Jr., *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L. J. 1353 (1981); David Rosenberg, *The Causal Connection in Mass Exposure Cases: A 'Public Law' Vision of the Tort System*, 97 HARV. L. REV. 849 (1984); Glen O. Robinson, *Probabilistic Causation and Compensation for Tortious Risk*, 14 J. LEG. STUD. 779 (1985); Ariel Porat and Alex Stein, *Tort Liability Under Uncertainty*, Oxford University Press (2001).

Contents

Acknowledgements

vii

Introduction Ariel Porat

ix

PART I PROPERTY RULES AND LIABILITY RULES

1. Guido Calabresi and A. Douglas Melamed (1972), 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral', *Harvard Law Review*, **85** (6), April, 1089–128 3
2. Lucian Arye Bebchuk (2001), 'Property Rights and Liability Rules: The Ex Ante View of the Cathedral', *Michigan Law Review*, **100**, December, 601–39 43
3. Ronen Avraham (2004), 'Modular Liability Rules,' *International Review of Law and Economics*, **24**, 269–97 82
4. Barbara Luppi and Francesco Parisi (2011), 'Toward an Asymmetric Coase Theorem', *European Journal of Law and Economics*, **31**, 111–22 111

PART II EFFICIENT BREACH: DAMAGES VERSUS SPECIFIC PERFORMANCE

5. Anthony T. Kronman (1977–1978), 'Specific Performance', *University of Chicago Law Review*, **45**, 351–82 125
6. Alan Schwartz (1979), 'The Case For Specific Performance', *Yale Law Journal*, **89** (1), November, 271–306 157
7. Thomas S. Ulen (1984–1985), 'The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies', *Michigan Law Review*, **83**, November, 341–403 193
8. Richard Craswell (1988), 'Contract Remedies, Renegotiation, and the Theory of Efficient Breach', *Southern California Law Review*, **61**, 629–70 256

PART III THE MEASURE OF RECOVERY

9. Robert Cooter and Melvin Aron Eisenberg (1985), 'Damages for Breach of Contract', *California Law Review*, **73** (5), October, 1432–81 301
10. Louis Kaplow and Steven Shavell (1996), 'Accuracy in the Assessment of Damages', *Journal of Law and Economics*, **XXXIX** (1), April, 191–210 351
11. A. Mitchell Polinsky and Steven Shavell (1998), 'Punitive Damages: An Economic Analysis', *Harvard Law Review*, **111** (4), February, 870–962 371

12. Charles J. Goetz and Robert E. Scott (1977), 'Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach', *Columbia Law Review*, **LXXVII**, 554–94 464

PART IV THE SCOPE OF LIABILITY

13. W. Bishop (1982), 'Economic Loss in Tort', *Oxford Journal of Legal Studies*, **2**, (1), 1–29 507
14. Samuel A. Rea, Jr. (1982), 'Nonpecuniary Loss and Breach of Contract', *Journal of Legal Studies*, **XI** (1), January, 35–53 536
15. David Friedman (1982), 'What is "Fair Compensation" for Death or Injury?', *International Review of Law and Economics*, **2** (1), June, 81–93 555
16. Richard A. Epstein (1989), 'Beyond Foreseeability: Consequential Damages in the Law of Contract', *Journal of Legal Studies*, **XVIII** (1), January, 105–38 568

PART V PARTIAL COMPENSATION

17. Saul Levmore (1990), 'Probabilistic Recoveries, Restitution, and Recurring Wrongs', *Journal of Legal Studies*, **XIX** (2), June, 691–726 605
18. Ariel Porat (2007), 'Offsetting Risks', *Michigan Law Review*, **106**, November, 243–76 641

Part I

Property Rules and Liability Rules